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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,939

Applicant(s)

HULL ET AL.

Examiner

Pierre-Louis Desir

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to amended claims 1 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 11/14/2005 have been fully considered but they are not persuasive.

Applicant disagrees with the examiner regarding the double patenting rejection, and notes that the amendments to the claims submitted in the response differentiate the claims even further.

Examiner respectfully disagrees, and reasserts the Double Patenting rejection. The claims as amended do not differentiate the claims with the claims from the cited application.

Double Patenting

2. Claims 1-16, 18-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-49 of copending Application No. 10/635940 and over claims 1-50 of copending Application 10/635/938. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is disclosed in the referenced copending applications and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter.

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For example, claim 1 of the present application describes a method of providing information about a real world space comprising as each of multiple users move through said space, depositing and storing virtual markers to indicate associated locations visited by the user in the space, aggregating the virtual markers deposited in respect of said multiple users in dependence on their associated locations, wither when storing the markers or subsequently; and using data about the aggregated markers of multiple locations to provide an information item relevant to use of the space to a further user moving through the space. Claim 1 of copending 10/635940 Application describes a method of providing information about a real world space comprising as a user moves through said space, depositing and storing virtual markers to indicate associated locations visited by the user in the space, the virtual markers each having initial strength; causing the strength values associated with the stored markers, either taken in location-dependent aggregations or individually to decay with time; using data about the current strength of the stored markers of multiple locations to provide an information item relevant to use of the space. And, claim 1 of copending Application 10/635938 discloses a method of providing information about a real world space comprising as a user move through said space, depositing and storing virtual markers that are not specific to the user to indicate associated locations visited by the user in the space, and using data about the stored markers of multiple locations to provide an information item relevant to use of the space; wherein in depositing and storing virtual markers, said markers are of more than one type, and wherein said data used to provide an information item comprises data about stored markers of a specific type or combinations of types selected in dependence on the nature of the information item provided.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

3. Claims 15-16 are objected to because of the following informalities:
“depositing and storing virtual markers comprises” should be “depositing and storing virtual markers comprise.” Appropriate correction is required.

Claims 11 and 13 are objected to because of the following informalities:
“throughs” should be “troughs.” Appropriate correction is required.

Claims 26-30, and 32 are objected to because of the following informalities:
“data-processingsystem” and “informationitem” should be “data-processing system” and “information item.” Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "visual marker" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Note: for the process of examination, examiner will interpret "visual marker" as "virtual marker."

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8, 15-16, 18-24, 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabala, U.S. Patent No. 6539393, in view of Sumi et al (Sumi), JP 11096230 (cited by Applicant).

Regarding claim 1, Kabala discloses a method of providing information about a real-world space, comprising, as each of multiple users moves through said space, depositing and storing virtual markers to indicate associated locations visited by the user in the space (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge) (see fig. 1, col. 4, lines 52-63); aggregating the virtual markers deposited in respect of said multiple users in dependence on their associated locations, either when storing the markers or subsequently (see fig. 1, col. 4, lines 52-67); and using data about the aggregated markers of multiple locations to provide information relevant to use of the space (see col. 7, lines 46-67).

Although Kabala discloses a method as described, Kabala does not specifically disclose a method wherein data about the aggregated markers of multiple locations are used to provide an information item relevant to use of the space to a further user moving through the space.

However, Sumi (cited by applicant) discloses a method wherein a portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms, sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract). One skilled in the art would immediately conceptualize that as the user moves from location to location, data corresponding to the user's interests and data relevant to the use of the location is being provided to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to enhance user's participation by providing to the user information based on estimated interests.

Regarding claims 2 and 19, Kabala discloses a method and apparatus (see claims 1 and 18 rejections and reasoning) further comprising providing a plurality of storage

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location cells that correspond to respective areas of said space (i.e., a plurality of transceivers modules cover different areas) (see figs. 1-2, col. 6, lines 11-13, and col. 7, lines 22-24); and associating strength values with the virtual markers (i.e., signal strength of the signals received from the badges are forwarded by the transceivers to the central processor) (see col. 4, lines 57-59); wherein storing and aggregating each marker comprises adding a strength value associated with the marker to an existing aggregated strength value, if any, stored in the location cell that corresponds to an area covering the location associated with the marker (i.e., comparing the signal strengths) (see col. 8, lines 6-38, and col. 11, lines 39-43); and storing the resulting value as an aggregated strength value in the location cell that corresponds to the area covering the location associated with the marker (see col. 6, lines 1-45).

In addition, it would have also been obvious to one of ordinary skill in the art to conceptualize (referring to Sumi) that as the visitor moves from location to location, the strength value associated with the location where the user is located will be increased to facilitate the displaying of information (personal interests) to the visitor (see Sumi's abstract).

Regarding claims 3 and 20, Kabala discloses a method and apparatus (see claims 2 and 19 rejections and reasoning) wherein the storage and aggregation of a said marker involves, in addition to increasing the aggregated strength value of the corresponding location cell by the strength value of the marker (see claim 2 rejection).

Although Kabala discloses a method as described, Kabala does not specifically disclose a method comprising increasing by a lesser amount the aggregated strength value

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of at least one location cell covering a said area adjacent to the area covering the location associated with the marker.

However, Sumi discloses a wherein a portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms, sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract).

Therefore, it would have also been obvious to one of ordinary skill in the art at the time of the invention to conceptualize that as the visitor moves from location to location, the strength value associated with the location where the user is located will be increased by whatever amount to facilitate the transmission of information (personal interests) to the visitor (see Sumi's abstract).

Regarding claim 4, Kabala discloses a method (see claim 1 rejection) wherein the individual markers that have been deposited are retained after aggregating the markers (i.e., the central processor includes stored program and associated memory for processing and time stamping the received packets) (see col. 5, lines 33-35), the markers deposited in respect of at least one user including information associating together those markers whereby to enable the trail taken by the user through the space to be determined (i.e., the

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received packets are processed and time stamped to track each attendee) (see col. 5, lines 33-36).

Regarding claim 5, Kabala discloses a method (see claim 1 rejection) wherein said virtual markers are deposited automatically at one of: predetermined intervals of time (see col. 5, lines 1-5).

Regarding claim 6, Kabala discloses a method (see claim 1 rejection) wherein the said virtual markers deposited in respect of each user are deposited by a mobile device carried by the user (i.e., portable wireless transmitters for transmitting identification code) (see abstract).

Regarding claim 7, Kabala discloses a method (see claim 6 rejection) wherein the virtual markers are stored in a central system (i.e., the system comprises memory for storing a list of the wireless transmitters, its identification code) (see col. 3, lines 13-16).

Regarding claim 8, Kabala discloses a method (see claim 1 rejection) wherein the said virtual markers are deposited and stored by an infrastructure system that monitors the locations of the users (i.e., central processor) (see abstract).

Regarding claim 15, Kabala discloses a method (see claim 1 rejection) wherein depositing and storing virtual markers comprise depositing the virtual marker when the user reaches a location corresponding to a feature of interest in the space (see col. 5, lines 50-55) involving using the aggregated marker data concerning such features to provide information about their relative popularity (see fig. 6, col. 9, lines 18-22).

Although Kabala discloses a method as described, Kabala does not specifically disclose a method comprising using data about the aggregated markers of multiple

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locations to provide an information item relevant to use of the space to a further user moving through the space.

However, Sumi (cited by applicant) discloses a method wherein a portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms, sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract). One skilled in the art would immediately conceptualize that as the user moves from location to location, data corresponding to the user's interests and data relevant to the use of the location is being provided to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to enhance user's participation by providing to the user information based on estimated interests.

Regarding claim 16, Kabala discloses a method (see claim 1 rejection) wherein depositing and storing virtual markers comprise depositing a said virtual marker upon a said user requesting, whilst at a location corresponding to a feature of interest in the space, to be presented with a media item concerning that feature space (see col. 4, lines

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52-63, and col. 5, lines 50-55); involving using the aggregated marker data concerning such features to provide information about their relative popularity (see fig. 6, col. 9, lines 18-22).

Although Kabala discloses a method as described, Kabala does not specifically disclose a method comprising using data about the aggregated markers of multiple locations to provide an information item relevant to use of the space to a further user moving through the space.

However, Sumi (cited by applicant) discloses a method wherein a portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms, sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract). One skilled in the art would immediately conceptualize that as the user moves from location to location, data corresponding to the user's interests and data relevant to the use of the location is being provided to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed

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invention. A motivation for doing so would have been to enhance user's participation by providing to the user information based on estimated interests.

Regarding claim 18, Regarding claim 18, Kabala discloses an apparatus for providing information about a real-world space, the apparatus comprising: a first arrangement arranged to deposit and store virtual markers to indicate associated locations visited by each of multiple users in the space (see fig. 1, col. 4, lines 52-63); a second arrangement arranged to aggregate the virtual markers deposited in respect of said multiple users, in dependence on their associated locations, either when the markers are being stored or subsequently (i.e., the central processor retrieves the information entered by operators when the attendees registered for the show to archive a list having identity of the attendees, the places of booths visited (location of the booth), the times and duration of the visits) (see fig. 1, col. 4, lines 63-67); and a third arrangement arranged to use data about the aggregated markers to provide information relevant to use of the space (see col. 7, lines 63-67).

Although Kabala discloses an apparatus as described (it should also be noted that the presence of the user at a location represents a request by the user), Kabala does not specifically disclose an arrangement comprising enabling a further user in the space to request and be presented with an information item relevant to use of the space, and a data-processing system arranged to use data about the aggregated markers of multiple locations to provide the information item in response to the request.

However, Sumi (cited by applicant) discloses an apparatus wherein portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification

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signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms (i.e., the user by observing a specific display, inherently requests information), sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to enhance user's participation by providing to the user information based on estimated interests.

Regarding claim 21, Kabala discloses an apparatus (see claim 18 rejection) wherein the first arrangement is arranged to retain the individual markers after marker aggregation by the second arrangement (i.e., the central processor includes stored program and associated memory for processing and time stamping the received packets) (see col. 5, lines 33-35), the first arrangement being further arranged to associate with markers deposited in respect of at least one user information associating together those markers whereby to enable the trail taken by the user through the space to be determined (i.e., the received packets are processed and time stamped to track each attendee) (see col. 5, lines 33-36).

Regarding claim 22, Kabala discloses an apparatus (see claim 18 rejection) wherein the first arrangement comprises mobile devices intended to be carried by said

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multiple users (i.e., portable wireless transmitters) (see abstract), each mobile device being arranged to deposit said virtual markers in respect of a said user carrying the device (i.e., portable wireless transmitters for transmitting identification code) (see abstract).

Regarding claim 23, Kabala discloses an apparatus (see claim 22 rejection) wherein the first arrangement further comprises a central system for storing the virtual markers deposited by the mobile devices (i.e., the system comprises memory for storing a list of the wireless transmitters, its identification code) (see col. 3, lines 13-16).

Regarding claim 24, Kabala discloses an apparatus (see claim 18 rejection) wherein the first arrangement comprises an infrastructure system arranged to monitor the locations of the users and to deposit and store said virtual markers (i.e., central processor) (see abstract).

Regarding claim 31, Kabala discloses an apparatus (see claim 18 rejection) wherein the first arrangement is arranged to deposit a said virtual marker whenever a said user reaches a location corresponding to a feature of interest in the space (see col. 5, lines 50-55), the data processing system of the third arrangement being arranged to use the aggregated-marker data concerning such features to provide information about their popularity (see fig. 6, col. 9, lines 18-22).

Although Kabala discloses an apparatus as described, Kabala does not specifically disclose an arrangement comprising providing as information item information about relative popularity.

However, Sumi (cited by applicant) discloses an apparatus wherein portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification

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signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms (i.e., the user by observing a specific display, inherently requests information), sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to enhance user's participation by providing to the user information based on estimated interests.

Regarding claim 32, Kabala discloses an apparatus (see claim 18 rejection) wherein the first arrangement is arranged to deposit a said virtual marker upon determining that a said user is at a location corresponding to a feature of interest in the space and has requested to be presented with a media item concerning that feature (i.e., when each attendee walks or attends different booths of the trade show, transceivers in each booth receives identification code of the badge carried by the attendee. The identification information, the signal strength of the signals received from the badges, are forwarded by the transceivers to the central processor to process and sort the information into which of the transceivers were visited by the badge. Thus, when the attendee attends a booth, the attendee inherently requests information related to that booth) (see fig. 1, col. 4, lines 52-63), the data processing system of the third arrangement being arranged to use

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aggregated-marker data concerning such features to provide information about their popularity (see fig. 6, col. 9, lines 18-22).

Although Kabala discloses an apparatus as described, Kabala does not specifically disclose an arrangement comprising providing as information item information about relative popularity.

However, Sumi (cited by applicant) discloses an apparatus wherein portable information terminal equipment and a badge are delivered to each visitor at the entrance of an exhibition hall. Sensors in respective exhibition rooms detect an identification signal from the badge carried by the visitor and an active badge system discriminates the current position and visiting history of the visitor based on detection signals from respective sensors and applies the discriminated information to an information providing server. The server estimates the interests of the visitor by using the current position and visiting history, and in a process that the visitor observes displays in respective exhibition rooms (i.e., the user by observing a specific display, inherently requests information), sends personal information corresponding to the visitor's interests to the equipment to display the information (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to enhance user's participation by providing to the user information based on estimated interests.

8. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabala and Sumi, in further view of Dempsey, Pub. No. US 20020165731.

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Kabala and Sumi disclose a method as described above (see claims 1 and 18 rejections and reasoning).

Although Kabala and Sumi disclose a method as described, the combination does not specifically disclose a method comprising presenting, as said information item, an image of a virtual landscape formed by the location-dependent aggregations of markers mapped to a representation of the space.

However, Dempsey discloses a method wherein a location-determining module sends the current location of the attendee to the attendee display location where it is displayed on a map of the tradeshow floor (see page 5, paragraph 30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to have a method capable of determining the current location of a tradeshow attendee (see page 5, paragraph 30).

9. Claims 10-14, 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabala and Sumi, in further view of Chu et al. (Chu) Pub. No. US 20020174021.

Regarding claims 10, the combination discloses a method as described above (see claim 1 rejection and reasoning).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose a method wherein the

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information being derived by using the marker aggregation data to determine a path that follows ridges in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 11, the combination discloses a method as described above (see claim 1 rejection and reasoning).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose a method wherein the information being derived by using the marker aggregation data to determine that follows troughs in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the

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computed path may be consulted while the user follows the path (see paragraph 28).

Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 12, the combination discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose a method wherein the information being derived by using the marker aggregation data to determine that avoids ridges in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 13, the combination discloses a method as described above (see claim 1 rejection).

Although Kabala discloses a method for collecting location data within a facility (see col. 2, lines 42-43) wherein the information comprises information about a path through the space (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose a method wherein the information being derived by using the marker aggregation data to determine that avoids troughs in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses a method wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 14, the combination discloses a method as described above (see claim 1 rejection and reasoning).

Although Kabala discloses a method as described above, the combination does not specifically disclose a method involving using the aggregated marker data to predict a next location for a further user moving through the space having regard to that user's current location, this predicted next location then being used to provide to a mobile device of the further user, as said information, either the identify of media items associated with that predicted next location or the items themselves.

However, Chu discloses a method wherein a shopping path is recomputed using the user current location as a starting point, wherein the computed list anticipates the user next location for purchasing or identifying a specific item (see page 6, paragraph 59).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to provide to the user updated information as the user move through the facility.

Regarding claim 26, the combination discloses an apparatus as described above (see claim 18 rejection and reasoning).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the data processing system of the third arrangement is arranged to derive information about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose an apparatus wherein the information being derived by using the marker aggregation data to

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determine a path that follows ridges in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 27, the combination discloses an apparatus as described above (see claim 18 rejection).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the data processing system of the third arrangement is arranged to derive information about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose an apparatus wherein the information being derived by using the marker aggregation data to determine a path that follows troughs in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 28, the combination discloses an apparatus as described above (see claim 18 rejection and reasoning).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the data processing third arrangement is arranged to derive information, as said information item, about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose an apparatus wherein the information being derived by using the marker aggregation data to determine a that avoids ridges in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28).

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Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 29, the combination discloses an apparatus as described above (see claim 18 rejection and reasoning).

Although kabala discloses an apparatus for collecting location data within a facility (see col. 2, lines 42-43) wherein the data processing system of the third arrangement is arranged to derive information, as said information item, about a path through the space by using the marker aggregation data (i.e., location of the objects or persons traveled within the facility) (see col. 2, lines 55-56), the combination does not specifically disclose an apparatus wherein the information being derived by using the marker aggregation data to determine a path that avoids troughs in a virtual landscape formed by the location-dependent aggregations of markers.

However, Chu discloses an apparatus wherein an optimized path is automatically computed based upon particular items in an inventory (see abstract), wherein the computed path may be consulted while the user follows the path (see paragraph 28). Thus, one skilled in the art would immediately comprehend as the marker being deposited, the information is being used to determine location information, which inherently may be path that follows or avoids certain directions including ridges troughs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references as described to arrive at the claimed invention. A motivation for doing so would have been to facilitate the traffic flow of the attendee within the facility.

Regarding claim 30, the combination discloses an apparatus as described above (see claim 18 rejection and reasoning).

Although the combination discloses an apparatus as described above, the combination does not specifically disclose an apparatus wherein the data processing of the third arrangement is arranged to use the aggregated marker data to predict a next location for the further user having regard to that user's current location, the data processing system being further arranged to use the predicted next location to provide to a mobile device of the further user, as said information item, either the identity of media items associated with that predicted next location or the items themselves.

However, Chu discloses an apparatus wherein a shopping path is recomputed using the user current location as a starting point, wherein the computed list anticipates the user next location for purchasing or identifying a specific item (see page 6, paragraph 59).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to combine the references to arrive at the claimed invention. A motivation for doing so would have been to provide to the user updated information as the user move through the facility.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-779. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Pierre-Louis Desir
AU 2681
01/22/2006



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SUPERVISORY PATENT EXAMINER